

MATERIAL SAFETY DATA SHEET

Product Name: Schultz® TakeRoot™ Rooting Hormone

Section 1 - MATERIAL IDENTIFICATION

Chemical Name: Indole 3-butyric Acid

Trade Name: Schultz® TakeRoot™ Rooting Hormone

Synonyms: None.

EPA Reg. # 69916-1-39609

Chemical Classification: Butyrate

Intended Uses: Root growth promotant

Section 2 - PRINCIPAL HAZARDOUS COMPONENT(S)

Component	Molecular Formula	Molecular Wt.	CAS #	Percent (%)
Indole 3-butyric acid	$C_{12}H_{13}NO_2$	203.23	133-32-4	0.1
Talc (non-asbestiform)		n/a	14807-96-6	99.9

Section 3 - PHYSICAL PROPERTY DATA

Appearance	Grayish-white, fine powder
Odor/threshold level (ppm)	Slight odor
Boiling Point	n/a
Freezing Point	n/a
Melting Range	n/a
pH	n/a
Solubility in water	Insoluble
Specific gravity (water=1)	n/a
Vapor density (air=1)	n/a
Vapor pressure (mm Hg@ °C/°F)	n/a
Volatile components (% w/w)	n/a

Section 4 - FIRE AND EXPLOSION HAZARD DATA

Flash point (°C/°F)	n/a
Flash point test method	n/a
Autoignition temperature (°C/°F)	n/a
Flammable limits - LEL - (%)	n/a
- UEL - (%)	n/a
Extinguishing media	n/a
Special firefighting procedures	Firefighters should wear self-contained breathing apparatuses and full protective equipment.
Fire and explosion hazards	None known.
Hazardous decomposition products resulting from fire	None known.

Section 5 - REACTIVITY DATA

Stability	Stable under normal conditions of use & storage.
Storage conditions to avoid	None known.
Incompatibilities (materials to avoid)	None known.
Hazardous polymerizations	None.

Section 6 - EMERGENCY AND FIRST AID PROCEDURES

Eye contact	Flush thoroughly with plenty of water for at least five minutes. Get medical attention if irritation occurs or persists.
Skin contact	Flush thoroughly with plenty of water and wash contact area with soap and water. If skin is irritated, contact a physician. Remove contaminated clothing and wash before reuse.
Inhalation	If inhalation of material is excessive, get to fresh air. If discomfort occurs or persists, get medical attention. If large quantities are ingested, drink plenty of water and get immediate medical attention.
Medical conditions aggravated by exposure	No data available. May aggravate pre-existing lung dysfunction.

Section 7 - HEALTH HAZARD DATA

Component	OSHA Permissible Exposure Limit (PEL)	ACGIH - 1988-89 Threshold Limit Value	Exposure Control Limit (ECL)
Indole 3-butyric acid Talc (non-asbestiform) (*Respirable dust, non-asbestiform talcs of less than 1% free silicon)	Not established.	Not established.	Not established. *2mg/m ³

Carcinogen designation Not listed with NTP, IARC, and OSHA.

Effects of acute exposure

Eye contact
Skin contact
Inhalation

Direct contact with eyes may cause irritation.
Direct contact with skin may cause irritation.
Ingestion of large amounts may cause gastrointestinal irritation and nausea. Large doses of 3-butyric acid given to animals have caused depression, labored breathing, cyanosis (purple coloring of the skin due to oxygen deficiency), and loss of muscular coordination.

Effects of chronic exposure

Long-term, excessive exposure to dust may cause lung damage.

Section 8 - SPILL/LEAK/DISPOSAL PROCEDURES

Steps to be taken in case materials are released

Immediately contact emergency response personnel. Keep unnecessary persons away. If emergency response personnel are unavailable, vacuum, shovel or sweep up spilled material and place in an appropriate container for disposal. Use suitable protective equipment (Section 9). Follow all fire prevention procedures (Section 1).

Avoid contact of spilled materials and runoff with soil and surface waterways. Dispose of or treat all spill residues including contaminated soils following all federal, state and local regulations.

Section 9 - SPECIAL PROTECTION INFORMATION

Respiratory	If use results in high dust conditions, an MSHA-NIOSH approved respirator for dusts is recommended.
Hands/Arms	Impervious goggles
Eyes/Face	Safety goggles.
Additional protective equipment	Protective clothing such as coveralls and/or apron.
Ventilation	Local exhaust is recommended in dusty conditions. Proper ventilation should be maintained to keep dust exposure below TLV for talc.

Section 10 - SPECIAL PRECAUTIONS

Special precautions to be taken when:

--Handling and storing, etc.	Store in a cool, dry place. Avoid contact with eyes and skin. Do not breathe dust. Do not ingest. Wash thoroughly after use.
—Other	Keep container closed when not in use. Keep out of reach of children and pets.

Section 11 - BASIC TRANSPORTATION DESCRIPTION

Shipping requirements	Chemicals N.O.I. NMFC Number 48940 Sub 2
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Section 12 - MSDS PREPARATION

Schultz Company 13260 Corporate Exchange Dr. Bridgeton, MO 63044-3720 (314) 298-2700 August 1999	These data are offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied, is made. The recommended handling procedures are believed to be generally applicable. However, each user <i>should</i> review these recommendations in the specific context of the intended use.
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